

M7SUA BIOS Setup

BIOS Setup	1
1 Main Menu	3
2 Standard CMOS Features	6
3 Advanced BIOS Features	9
4 Advanced Chipset Features	12
5 Integrated Peripherals	15
6 Power Management Setup	20
7 PnP/PCI Configurations.....	24
8 PC Health Status	26
9 Frequency Control	28

M7SUA BIOS Setup

BIOS Setup

Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium® 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

M7SUA BIOS Setup

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the AMD Socket CPU.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

M7SUA BIOS Setup

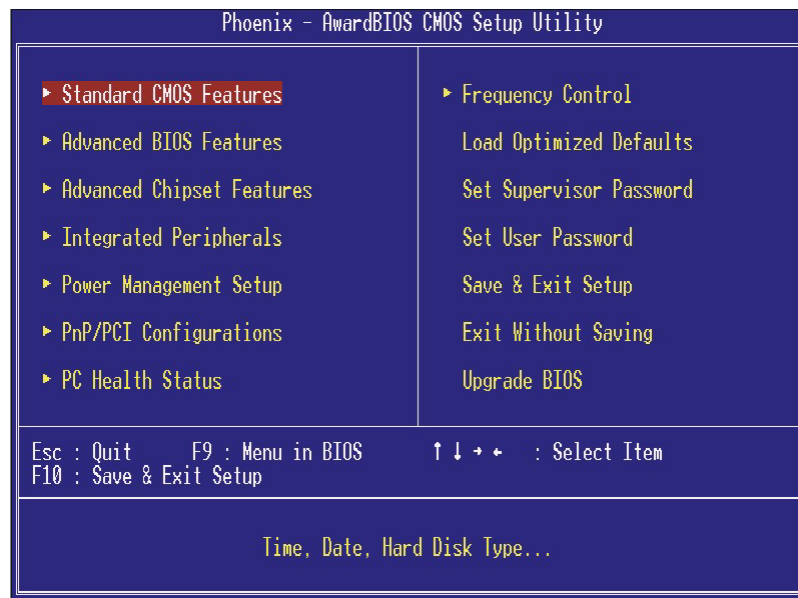
1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

!! WARNING !!

The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1. Main Menu**



Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

M7SUA BIOS Setup

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain “Plug and Play” and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Frequency Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use. Not properly change the voltage and clock may cause CPU or M/B damage!)**

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.

A screenshot of a BIOS screen with a dark red background and a double-line border. The text "Load Optimized Defaults (Y/N)? N" is displayed in a light red, monospaced font.

Load Optimized Defaults (Y/N)? N

Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

A screenshot of a BIOS screen with a dark red background and a double-line border. The text "Enter Password:" is displayed in a light red, monospaced font.

Enter Password:

M7SUA BIOS Setup

Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the “User” will only be able to view configurations but will not be able to change them.

Enter Password:

Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.

SAVE to CMOS and EXIT (Y/N)? **Y**

Exit Without Saving

Abandon all changes made during the current session and exit setup. Confirmation message will be displayed before proceeding.

Quit Without Saving (Y/N)? **N**

Upgrade BIOS

This submenu allows you to upgrade bios.

BIOS UPDATE UTILITY (Y/N)? **N**

M7SUA BIOS Setup

2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

■ Figure 2. Standard CMOS Setup

Phoenix - AwardBIOS CMOS Setup Utility		
Standard CMOS Features		
Date (mm:dd:yy)	Thu, Apr 24 2003	Item Help
Time (hh:mm:ss)	14 : 43 : 19	
▶ IDE Primary Master		Menu Level ▶ Change the day, month, year and century
▶ IDE Primary Slave		
▶ IDE Secondary Master		
▶ IDE Secondary Slave		
Drive A	[1.44M, 3.5 in.]	
Drive B	[None]	
Video	[EGA/VGA]	
Halt On	[All Errors]	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	
↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

M7SUA BIOS Setup

Main Menu Selections

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Primary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

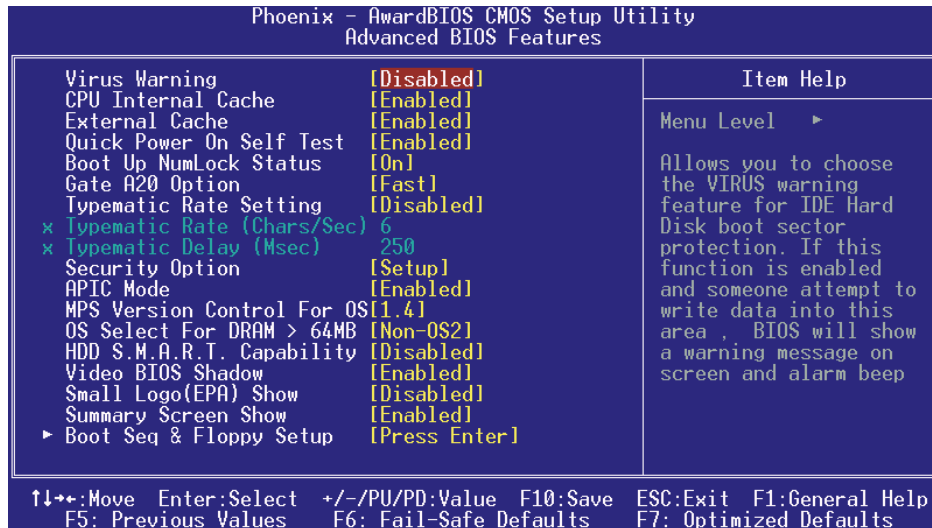
M7SUA BIOS Setup

Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

M7SUA BIOS Setup

3 Advanced BIOS Features

■ Figure 3. Advanced BIOS Setup



Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Disabled (default)	Virus protection is disabled.
Enabled	Virus protection is activated.

CPU Internal Cache

Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

The Choices:	
Enabled (default)	Enable cache.
Disabled	Disable cache.

External Cache

This option you to enable or disable "Level 2" secondary cache on the CPU, which may improve performance.

The Choices:	
Enabled (default)	Enable cache.
Disabled	Disable cache.

M7SUA BIOS Setup

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

The Choices:

Enabled (default)	Enable quick POST.
Disabled	Normal POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.

On (default)	Numpad is number keys.
Off	Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal	A pin in the keyboard controller controls Gate A20.
Fast (default)	Lets chipset control Gate A20.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.

Disabled (default)
Enabled

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.

The Choices: 6 (default), 8,10,12,15,20,24,30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

The Choices: 250 (default), 500,750,1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

System	A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default)	A password is required to access the Setup Utility only.

This will only apply if passwords are set from the Setup main menu.

APIC Mode

By selecting Enabled enables ACPI device mode reporting from the BIOS to the operating

M7SUA BIOS Setup

system.

The Choices: Enabled (default), Disabled.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.

The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.

The Choices: Non-OS2 (default), OS2.

HDD S.M.A.R.T. Capability

This item allows you to enable/disable the S.M.A.R.T. function of the hard disk.

The Choices: Disabled (default), Enabled.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

Enabled (default)

Optional ROM is enabled.

Disabled

Optional ROM is disabled.

Small Logo(EPA) Show

This item allows you to enable/ disable display the small EPA logo.

The Choices: Disabled (default), Enabled.

Summary Screen Show

This item allows you to enable/ disable display the Summary Screen Show.

The Choices: Enabled (default), Disabled.

Boot Seq & Floppy Setup

First/ Second/ Third/ Boot Other Device

These BIOS attempt to load the operating system from the device in the sequence selected in these items.

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

Swap Floppy Drive

For systems with two floppy drives, this option allows you to swap logical drive assignments.

The Choices: Disabled (default), Enabled.

Report No FDD For WIN 95

Whether report no FDD for WIN 95 or not.

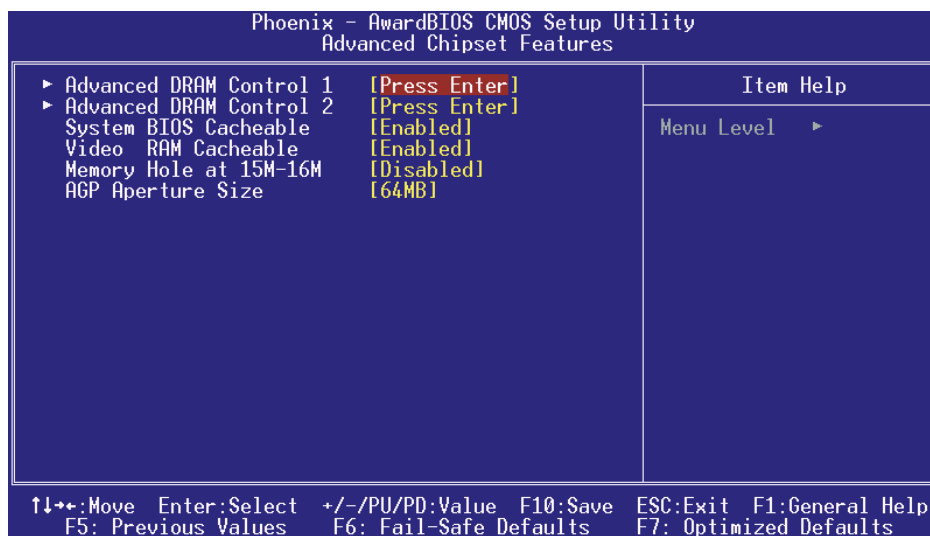
The Choices: Yes (default), No.

M7SUA BIOS Setup

4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

■ **Figure 4. Advanced Chipset Setup**



Advance DRAM Control 1

To control the DRAM Control 1. If you highlight the literal “Press Enter” next to the “Advance DRAM Control 1” label and then press the enter key, it will take you a submenu with the following options:

Auto Configuration

This item allows you to select the advance DRAM Control 1.

The Choices: Safe Mode, Fast Mode, Ultra Mode, **Normal Mode** (default).

DDR SDRAM Cas Latency

When DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.

The Choices: **Auto** (default), 2.0T, 2.5T.

M7SUA BIOS Setup

CPU/ DRAM CLK Synch CTL

This item allows you to select CPU/ DRAM CLK Synch CTL feature.

The Choices: **Auto** (default), Synchronous, Asynchronous.

DRAM BackGround Cycles

This item allows you to select the DRAM BackGround Cycles.

The Choices: Delay 1T, **Auto** (default), Normal.

LD-Off Dram RD/ WR Cycles

This items allows you to specify this feature.

The Choices: **Auto** (default), Delay 1T, Normal.

Advance DRAM Control 2

To control the DRAM Control 2. If you highlight the literal “Press Enter” next to the “Advance DRAM Control 1” label and then press the enter key, it will take you a submenu with the following options:

Cs [5:0]# Hold Time CTL

The Choices: +1.0ns, +1.5ns, +2.0ns, **+0.5ns** (default).

DQS/ CSB Hold Time CTL

The Choices: **+0.5ns** (default), +1.0ns, +1.5ns, +2.0ns

System BIOS Cacheable

Selecting the “Enabled” option allows caching of the system BIOS ROM at F0000h-FFFFh, which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors.

The Choices: **Enabled** (default), Disabled.

Video RAM Cacheable

Enabling this option allows caching of the video RAM, resulting a better system performance. However, if any program writes to this memory area, a system error may result.

The Choices: Disabled, **Enabled** (default).

Memory Hole At 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved it cannot be cached. The user information of peripherals that need to use this area of system memory usually2 discussed their memory requirements.

The Choices: **Disabled** (default), Enabled.

AGP Aperture Size (MB)

Select the size of the Accelerated Graphics Port (AGP) aperture. The apertures is a portion of the PCI memory address range dedicated for graphics memory address space. Host

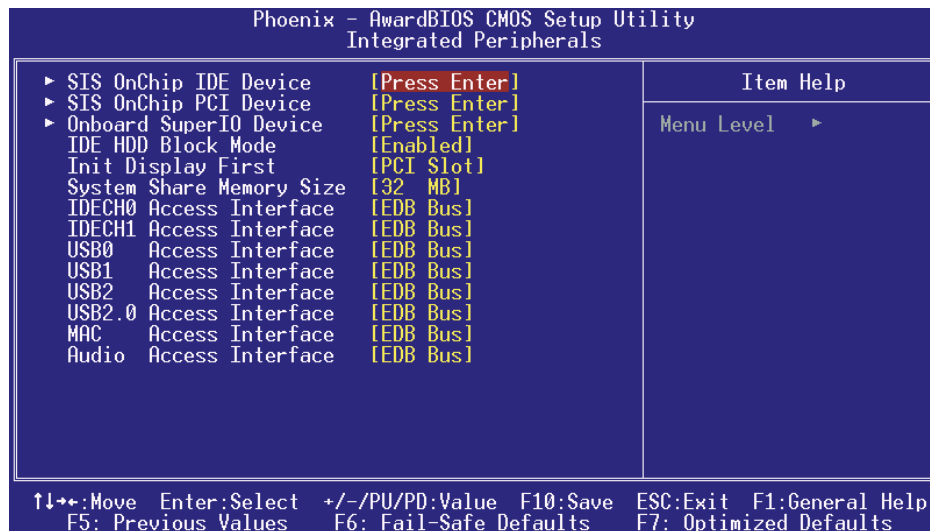
M7SUA BIOS Setup

cycles that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 64 (default), 4, 8, 16, 32, 128, 256.

M7SUA BIOS Setup

5 Integrated Peripherals

■ Figure 5. Integrated Peripherals



SIS OnChip IDE Device

The chipset contains a PCI IDE interface with support for two IDE channels.

Select "Enabled" to activate the first and / or second IDE interface. If you install a primary and / or secondary add-in IDE interface, select "Disabled" to deactivate an interface. If you highlight the literal "Press Enter" next to the "Onchip IDE Control" label and then press the enter key, it will take you a submenu with the following options:

Internal PCI/ IDE

The Choices: Disabled, Primary, Secondary, **Both** (Default).

IDE Primary / Secondary Master / Slave PIO

The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

IDE Primary / Secondary Master / Slave UDMA

Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to

M7SUA BIOS Setup

enable BIOS support.
The Choices: **Auto** (default), Disabled.

IDE Burst Mode
The Choices: **Enabled** (default), Disabled.

SIS OnChip PCI Device

If you highlight the literal “Press Enter” next to the “OnChip PCI Device” label and then press the enter key, it will take you a submenu with the following options:

SIS USB Controller

Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals.

The Choices: **Enabled** (default), Disabled

USB Ports Number

The Choices: **6 ports** (Default), 5 ports, 4 ports, 3 ports.

USB 2.0 Controller

The Choices: **enabled** (default), disabled.

USB Keyboard Support

This item allows you to enable or disable the USB Keyboard Legacy Support.

Enabled Enable USB Keyboard/Mouse Support.

Disabled (default) Disable USB Keyboard/Mouse Support.

SIS AC97 Audio

This option allows you to control the onboard AC97 audio.

The Choices: **Enabled** (default), Disabled.

SIS S/W Modem

This option allows you to control the onboard S/W modem.

The Choices: **Enabled** (default), Disabled.

SIS 10/ 100M ETHERNET

This option allows you to control the onboard LAN.

The Choices: **Enabled** (default), Disabled.

SIS MAC Address Input

Onboard Super IO Device

If you highlight the literal “Press Enter” next to the “Super IO Device” label and then press the enter key, it will take you a submenu with the following options:

Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the

M7SUA BIOS Setup

system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.

The Choices: Enabled (default), Disabled.

Onboard Serial Port 1

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: Disabled, **3F8/IRQ4** (default), 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Auto.

Onboard Serial Port 2

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: Disabled (default), 2F8/IRQ3, 3F8/IRQ4, 3E8/IRQ4, 2E8/IRQ3, Auto.

UART Mode Select

This item allows you to determine which Infra Red (IR) function of onboard I/O chip.

The Choices: Normal, ASKIR, **IrDA** (default).

UR2 Duplex Mode

Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.

The Choices: Half (default), Full.

Onboard Parallel Port

This item allows you to determine access onboard parallel port controller with which I/O Address.

The Choices: **378/IRQ7** (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode

The default value is SPP.

SPP (default)	Using Parallel port as Standard Printer Port.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port
ECP+EPP	Using Parallel port as ECP & EPP mode.

ECP Mode Use DMA

Select a DMA Channel for the port.

The Choices: **3** (default), 1.

Game Port Address

Game Port I/O Address.

The Choices: **201** (default), 209, Disabled.

M7SUA BIOS Setup

Midi Port Address

Midi Port Base I/O Address.

The Choices: 330 (default), 300, 290, Disabled.

Midi Port IRQ

This determines the IRQ in which the Midi Port can use.

The Choices: 10 (default), 5.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read / write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support.

The Choices: Enabled (default), Disabled.

Init Display First

With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.

The Choices: PCI Slot (default), AGP.

System Share Memory Size

This item allows you to select the system share memory size.

The Choices: 32MB (default), 64MB, 16MB, 8MB, 4MB.

IDECH0/1 Access Interface

This item allows you to select the IDECH0/1 Access Interface.

The Choices: EDB Bus (default), PCI Bus.

USB0 Access Interface

This item allows you select the USB0 Access Interface.

The Choices: EDB Bus (default), PCI Bus.

USB1 Access Interface

This item allows you select the USB1 Access Interface.

The Choices: EDB Bus (default), PCI Bus.

USB2 Access Interface

This item allows you select the USB2 Access Interface.

The Choices: EDB Bus (default), PCI Bus.

M7SUA BIOS Setup

USB2.0 Access Interface

This item allows you select the USB2.0 Access Interface.

The Choices: **EDB Bus** (default), PCI Bus.

MAC Access Interface

This item allows you select the MAC Access Interface.

The Choices: **Embedded Bus** (default), PCI Bus.

Audio Access Interface

This item allows you select the Audio Access Interface

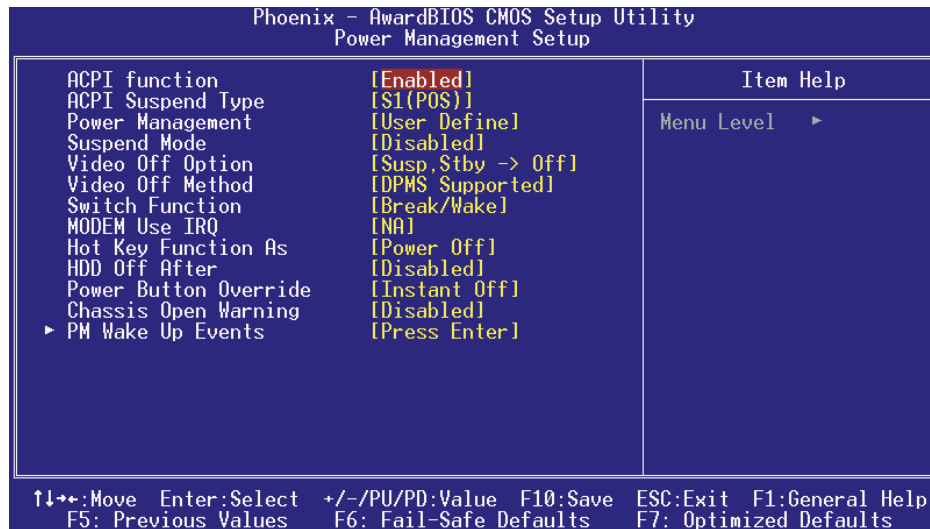
The Choices: **Embedded Bus** (default), PCI Bus.

M7SUA BIOS Setup

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

■ **Figure 6. Power Management Setup**



ACPI function

This item displays the status of the Advanced Configuration and Power Management (ACPI).

The Choices: Enabled (default), Disabled.

ACPI Suspend Type

The item allows you to select the suspend type under the ACPI operating system.

The Choices: S1 (POS) (default) Power on Suspend
S3 (STR) Suspend to RAM

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

- 1.HDD Power Down.
- 2.Suspend Mode.

M7SUA BIOS Setup

There are four options of Power Management, three of which have fixed mode settings
Min. Power Saving

Minimum power management.
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max. Power Saving

Maximum power management only available for sl CPU's.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Defined (default)

Allows you to set each mode individually.
When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD
Power Down which ranges from 1 min. to 15 min. and disable.

Suspend Mode

When enabled and when after the set time of system inactivity, all devices except the CPU
will be shut off.

The Choices: Disabled (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min,
10 Min, 20 Min, 30 Min, 40 Min, and 1Hour.

Video Off Option

This field determines when to activate the video off feature for monitor power
management.

The Choices: Suspend→Off (default), Always on, All Modes→Off.

Video Off Method

This option determines the manner in which the monitor is goes blank.

V/H SYNC+Blank (default)

This selection will cause the system to turn off the vertical and horizontal
synchronization ports and write blanks to the video buffer.

Blank Screen

This option only writes blanks to the video buffer.

DPMS Supported (default)

Initial display power management signaling.

Switch Function

You can choose whether or not to permit your system or enter complete suspend mode.

M7SUA BIOS Setup

Suspend mode offers greater power savings, with a correspondingly longer with a correspondingly longer awakening period.

The Choices: **Break/ Wake** (default), Disabled.

Modem Use IRQ

This determines the IRQ, which can be applied in MODEM use.

The Choices: Auto, 3, 4, 5, 7, 9, 10, 11, **NA** (default).

Hot Key Function As

This item allows you select Hot Key Function As Power Off (Ctrl-Alt-Backspace).

The Choices: **Power Off** (default), Disabled, Suspend.

HDD Off After

After a selected period of drive inactivity, the hard disk drive will power down while all other devices remain active.

The Choices: **Disabled** (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15 Min.

Power Button Override

When you select Delay 4 sec, pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state.

The Choices: **Instant Off** (default), Delay 4 Sec.

Chassis Open Warning

This item allows you to enable or disable chassis open warning beep sound.

The Choices: **Disabled** (default), Enabled.

PM Wake Up Events

If you highlight the literal "Press Enter" next to the "PM Wake Up Events" label and then press the enter key, it will take you a submenu with the following options:

IRQ [3-7, 9-15], NMI

This item allows you enable/disable IRQ [3-7,9-15] NMI.

The Choices: **Enabled** (default), Disabled.

IRQ 8 Break Suspend

This item allows you enable/disable IRQ8 Break Suspend.

The Choices: **Disabled** (default), Enabled.

RING/WOL Power Up Control

This item allows you to control the RING Power Up.

The Choices: Enabled, **Disabled** (default).

M7SUA BIOS Setup

MACPME Power Up Control

This item allows you to control the MACPME Power Up.

The Choices: Enabled, **Disabled** (default).

PCIPME Power Up Control

This item allows you to control the PCIPME Power Up.

The Choices: Enabled, **Disabled** (default).

Power Up by Alarm

When you select Enabled, fields appear that let you set the alarm that returns the system to Full On state.

The Choices: **Disabled** (default), Enabled.

Month Alarm

Select a month (1-12) or NA if you want the alarm active during all months

Day of Month Alarm

Select a date in the month. Select 0 if you prefer to set a weekly alarm.

Time (hh:mm:ss) Alarm

Set the time you want the alarm to go off on the days when it is activated.

Reload Global Timer Events

Reload Global Timer Events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything, which occurs to a device, which is configured as Enabled, even when the system is in a power down mode.

Primary IDE **Disabled** (default), Enabled.

Secondary IDE **Disabled** (default), Enabled.

FDD, COM, LPT Port **Disabled** (default), Enabled.

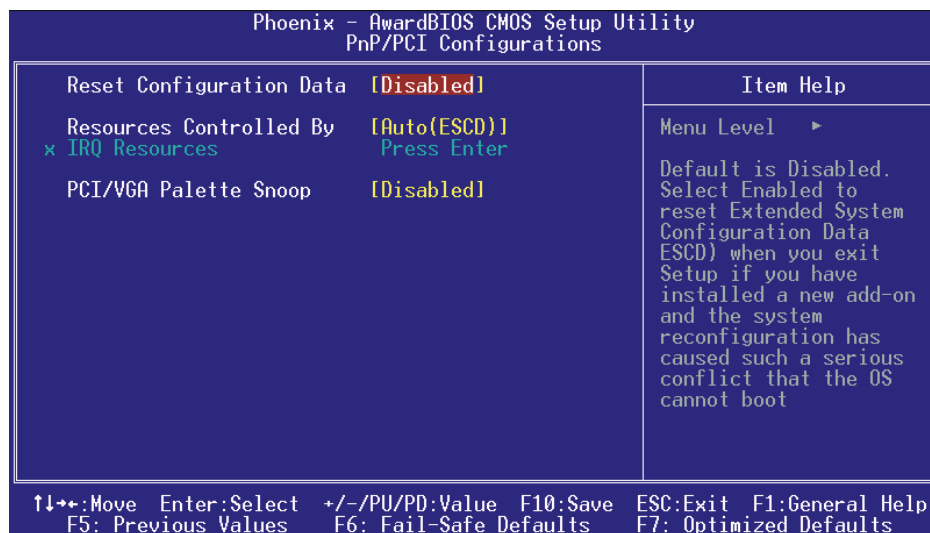
PCI, PIRQ[A-D]# **Disabled** (default), Enabled.

M7SUA BIOS Setup

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ Figure 7. PnP/PCI Configurations



Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.

Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI

M7SUA BIOS Setup

Bus or provides for ISA PnP add-on cards and peripherals.

The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing “**Auto(ESCD)**” (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing “Manual”, the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the “Press Enter” tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when “Resources Controlled By” is set to “Manual”.

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

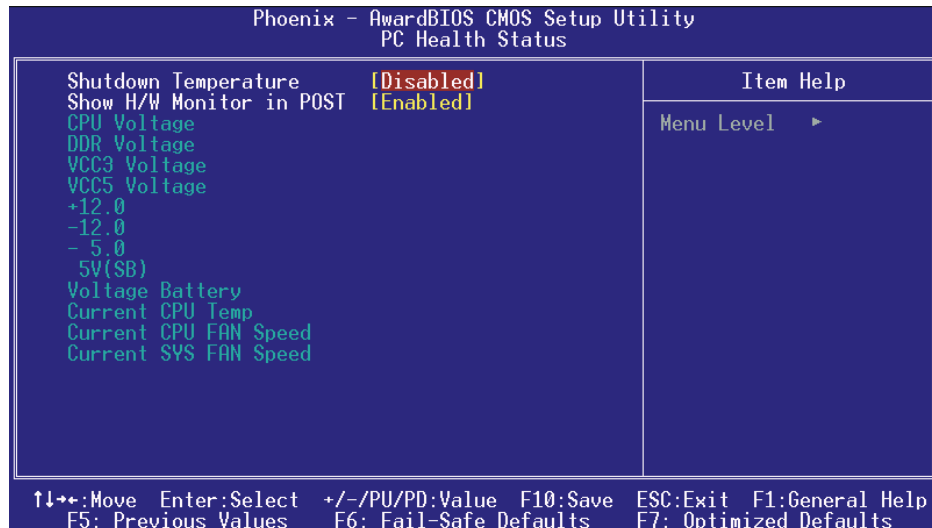
In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default)	Disables the function.
Enabled	Enables the function.

M7SUA BIOS Setup

8 PC Health Status

■ Figure 8. PC Health Status



Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.

The Choices: **Disabled** (default), 60OC/140OF, 65OC/149OF, 70OC/158OF, 75OC/167OF.

Show H/W Monitor in POST

If your computer contains a monitoring system, it will show PC health status during POST stage. The item offers several delay time for you to choose.

The Choices: **Enabled** (default), Disabled.

CPU Voltage/DDR Voltage/ VCC3/ VCC5/ +12V/-12V/-5V/ 5V (SB)/ Voltage Battery

Detect the system's voltage status automatically.

Current CPU Temp

This field displays the current temperature of the CPU.

M7SUA BIOS Setup

Current CPU FAN Speed

This field displays the current speed of CPU fan.

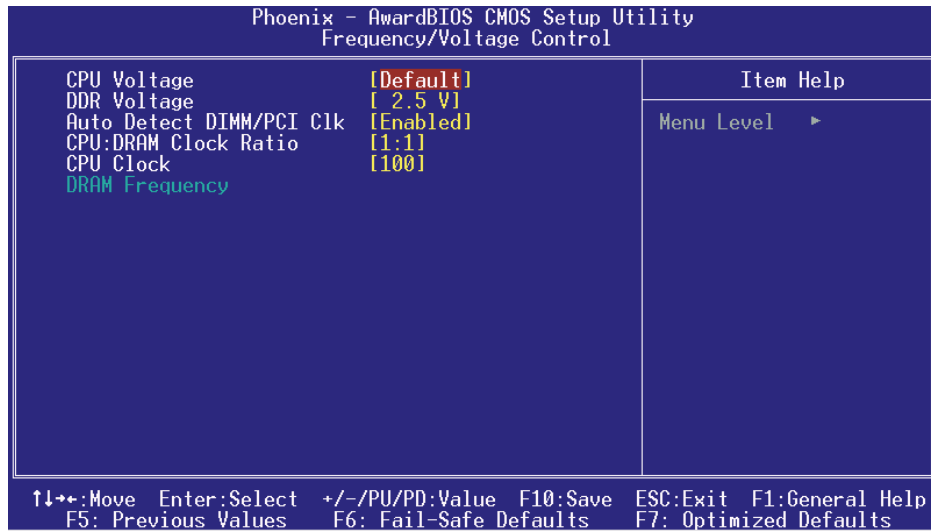
Current SYS FAN Speed

This field displays the current speed SYSTEM fan.

M7SUA BIOS Setup

9 Frequency Control

■ Figure 9. Frequency Control



CPU Voltage

This item allows you to select CPU Voltage Regulator.

The Choices: Default (default), +1.7%, +3.45%, +5.1%.

DDR Voltage

This item allows you to select DDR Voltage Regulator.

The Choices: 2.5V (Default), 2.6, 2.7, 2.8.

Auto Detect PCI/ DIMM Clk

This item allows you to enable / disable auto Detect PCI Clock.

The Choices: Enabled (default), Disabled.

CPU:DRAM Clock Ratio

The Choices: 1:1 (default).

Spread Spectrum

This item allows you to enable / disable spectrum for all clock.

M7SUA BIOS Setup

The Choices: +/-0.25% (default), Disabled, -0.5%, +/-0.5%, +/-0.75%.

CPU Clock

This item allows you to select CPU Clock, and CPU over clocking.



If unfortunately, the system's frequency that you are selected is not functioning, there are two methods of booting-up the system.

Method 1: Clear the COMS data by setting the JCOMS1 ((2-3) closed)) as "ON" status. All the CMOS data will be loaded as defaults setting.

Method 2: Press the <Insert> key and Power button simultaneously, after that keep-on pressing the <Insert> key until the power-on screen showed. This action will boot-up the system according to FSB of the processor.

※ It's strongly recommended to set CPU Vcore and clock in default setting. If the CPU Vcore and clock are not in default setting, it may cause CPU or M/B damage.